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United States
Department of
Agriculture

Natural
Resources
Conservation
Service

Idaho

Basin Outlook Report

February 1, 1997



Basin Outlook Reports

and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

Your local Natural Resources Conservation Service Office

or

Natural Resources Conservation Service

Snow Surveys

3244 Elder Street, Room 124

Boise, ID 83705-4711

(208) 378-5740

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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IDAHO WATER SUPPLY OUTLOOK REPORT

FEBRUARY 1, 1997

SUMMARY

If the current wet trend continues through the rest of the winter, 1997 will set new records for seasonal snowpacks in Idaho. Heavy precipitation in January further increased the snowpacks throughout the state, with many watersheds reporting record snowpack levels. As a result, most streamflow forecasts have increased from projections reported last month, and *several streams are expected to yield record volumes this year*. With two months still remaining in the winter accumulation season, water managers throughout the state are preparing for high runoff this spring and summer. Individuals living in low lying areas should monitor the situation closely this spring, as warm weather or rain-on-snow events could cause rapid rises in streamflow.

SNOWPACK

January was another heavy snowfall month for central and southern Idaho. Northern Idaho reported slightly below average snowfall, while the central and southern mountains received well above normal amounts. Most snowpacks in the state are currently in excess of 150% of average, with the Wood and Lost River basins approaching 200% of average. New record maximum snowpacks are being reported for February 1 in the Boise, Big Wood, Big Lost, Upper Snake, and Bear river basins, breaking previous records from the last 35 years. Nearly every SNOTEL site in the state has already received its normal full winter's complement of snow; sites in the central mountains and Upper Snake basin have far exceeded the normal seasonal maximum.

PRECIPITATION

Mountain precipitation was extremely heavy during January for most of Idaho, especially during the first and last days of the month. Warm temperatures and heavy rain during the first few days of January brought widespread flooding to southwestern Idaho. Similar conditions around February 1 raised fears of a similar event, but rivers did not rise to the levels experienced around New Year's Day. January precipitation amounts varied from near average in the Idaho Panhandle to over 160% of average along the southern edge of the state. The Central Mountains reported 120-140% of normal precipitation for the month. Water year totals range from 140% of average in the north to 180% in the central mountains. The southern edge of the state and the Upper Snake River basin report 160% of average for the water year.

RESERVOIRS

Reservoirs throughout the state are reporting above normal storage for this time of year as a result of good carryover from last year and high inflows during the fall and winter. Reservoir operators are actively making room for this spring's runoff and many reservoirs will be very low prior to spring runoff. Consequently, streamflows will be high below most reservoirs until adequate flood control space is attained. Most reservoirs are expected to refill, and sustained high flows should delay the typical summer drawdown of most irrigation reservoirs until later than normal. Managers of small private reservoirs should be aware of the potential for uncontrolled spill this spring; assistance is available from the NRCS for reservoir management guidance.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive, and in some cases dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in the back of this report.

STREAMFLOW

Heavy rain and warm temperatures during the first and last few days of January brought significant rises to streams throughout the state. Southwestern Idaho was hit especially hard at the start of the new year. The Weiser River experienced record flooding, and similar conditions were reported in the Payette basin. But the New Year's flood is only part of the story: record high snowpacks throughout the state indicate *the potential for extremely high water still exists when the spring melt season hits*. All streams in the state are expected to produce well above average runoff. Several streams are expected to yield the largest volume runoff of record, including the Salmon, Boise, Payette, Big Lost, Big Wood, and Snake rivers. Some of these streamflow records go back as much as 100 years. Fortunately, there is still time to prepare for high water: sandbags can be stockpiled, irrigation diversion works and distribution channels can be reinforced, cleaned or enlarged, and bridges and culverts can be cleaned of debris. Livestock and cropping plans can be altered for flood prone fields, and individual homeowners in low lying areas can inventory or move belongings and prepare survival kits and evacuation plans. Residents in low lying areas should monitor reservoir, streamflow, and weather conditions closely this spring, as warm weather or rain-on-snow events could cause rapid rises in river levels.

RECREATION OUTLOOK

With most of the state reporting in excess of 150% of average snowpack, water will be in abundance this year throughout Idaho. Many areas in central and southern Idaho are reporting record high snowpacks, and many streams are expected to yield record high volumes this spring and summer. Both the Salmon and Payette rivers - important recreational streams - are expected to yield the highest volumes in almost 100 years. Deep snowpacks and heavy snowfall make for excellent skiing, but they are also prime ingredients for avalanche activity in the mountains. Backcountry users should be aware of current avalanche conditions and take the appropriate precautions. River runners should expect *extremely high flows* during the peak of the runoff season, followed by an extended boating season well into the summer. The southwestern desert rivers should yield a long season this year - good news for an area that normally has a limited window of opportunity. Novice boaters should be aware of the hazards of high flows and cold water and should exercise caution until water levels drop to a more forgiving level. Reservoir users can expect reservoirs to be drawn down during the spring, but after peak flows are past they should refill and remain full well into the summer. All in all, this record snowfall year will bless Idaho with abundant outdoor recreation opportunities.

WATER SUPPLY FORECASTING PRODUCTS ON THE INTERNET

Water Supply Forecasting products are now available on the INTERNET. These products include the SNOTEL Update Reports, State Basin Outlook Reports, and products previously published in the Water Supply Outlook for the Western United States.

The Universal Resource Locator (URL) for our home page is: <http://id.nrcs.usda.gov>

You can access the Anonymous FTP server by pointing your INTERNET browser (Netscape, Mosaic, etc.) to: <ftp://ftp.wcc.nrcs.usda.gov>

We will continue to add more products to our Home Page and Anonymous FTP server and welcome any comments and suggestions you might have. Questions and comments should be directed to the NRCS Snow Survey.

Natural Resources Conservation Service
Snow Survey Staff
3244 Elder Street, Room 124
Boise, Idaho 83705-4711
Phone (208) 378-5740
Email snow@id.nrcs.usda.gov

IDAHO SURFACE WATER SUPPLY INDEX (SWSI)

As of February 1, 1997

The surface water supply index (swsi) is predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

SWSI values are published January through May, and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

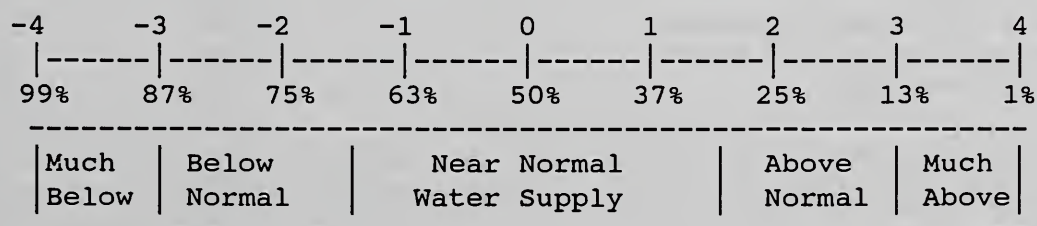
The following agencies and cooperators provide assistance in the preparation of the Surface Water Supply Index for Idaho:

US Department of Commerce, National Weather Service
US Bureau of Reclamation
Idaho Water Users Association

US Army Corps of Engineers
Idaho Department of Water Resources
PacifiCorp

<i>BASIN or REGION</i>	<i>SWSI Value</i>	<i>Most Recent Year With Similar SWSI Value</i>	<i>Agricultural Water Supply Shortage May Occur When SWSI is Less Than</i>
PANHANDLE	3.7	1956	NA
CLEARWATER	3.3	1972	NA
SALMON	4.1	1971	NA
WEISER	4.0	1971	NA
PAYETTE	4.0	1974	NA
BOISE	4.0	1965	-2.6
BIG WOOD	3.8	1965	-1.4
LITTLE WOOD	3.2	1982	-2.1
BIG LOST	4.0	1965	-0.8
LITTLE LOST	3.8	1984	0.0
HENRYS FORK	3.8	1971	-3.3
SNAKE (AMERICAN FALLS)	2.9	1972	-2.0
OAKLEY	3.9	1984	0.0
SALMON FALLS	3.9	1985	0.0
BRUNEAU	3.8	1971	NA
OWYHEE	3.5	1975	NA
BEAR RIVER	2.5	1974	-3.8

SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION



Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply", represents three SWSI units and would be expected to occur about one third (36%) of the time.

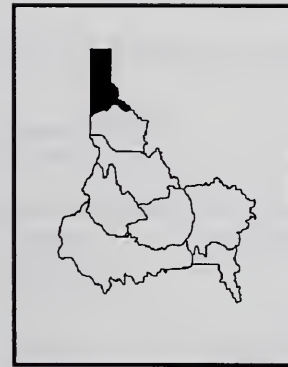
BASIN - WIDE SNOWPACK SUMMARY

FEBRUARY 1997

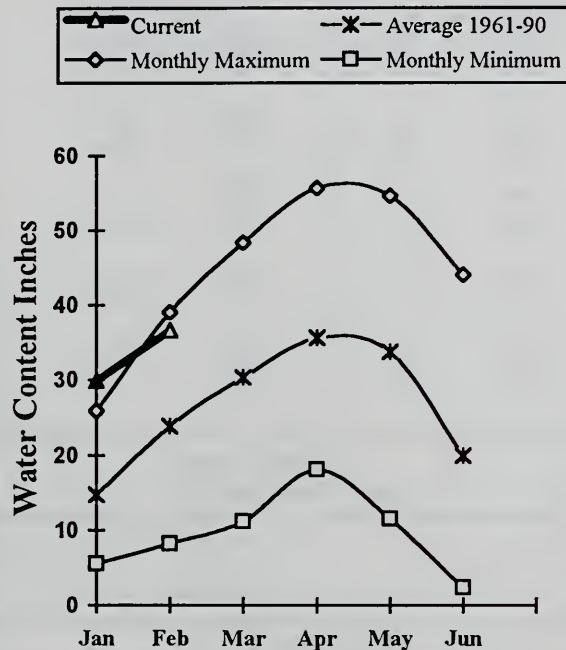
BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE

Kootenai ab Bonners Ferry	124%	143%
Moyie River	136%	143%
Priest River	264%	160%
Pend Oreille River	149%	162%
Rathdrum Creek	342%	178%
Hayden Lake	Not Available	
Coeur d'Alene River	215%	155%
St. Joe River	192%	167%
Spokane River	228%	164%
Palouse River	216%	175%
North Fork Clearwater	174%	161%
Lochsa River	156%	157%
Selway River	150%	158%
Clearwater Basin Total	166%	160%
Salmon River ab Salmon	154%	190%
Lemhi River	135%	163%
Middle Fork Salmon River	152%	173%
South Fork Salmon River	158%	168%
Little Salmon River	171%	153%
Salmon Basin Total	150%	170%
Mann Creek	164%	132%
Weiser River	161%	135%
North Fork Payette	169%	161%
South Fork Payette	165%	169%
Payette Basin Total	167%	164%
Middle & North Fork Boise	169%	188%
South Fork Boise River	155%	187%
Mores Creek	187%	185%
Boise Basin Total	166%	181%
Canyon Creek	Not Available	
Big Wood ab Magic	174%	204%
Camas Creek	163%	166%
Big Wood Basin Total	172%	198%
Little Wood River	180%	183%
Fish Creek	Not Available	
Big Lost River	206%	211%
Little Lost River	164%	173%
Camas-Beaver Creeks	183%	135%
Henrys Fork River	165%	185%
Teton River	162%	181%
Snake above Jackson Lake	138%	181%
Gros Ventre River	131%	169%
Hoback River	128%	174%
Greys River	128%	170%
Salt River	122%	167%
Snake above Palisades	134%	178%
Willow Creek	170%	187%
Blackfoot River	152%	169%
Portneuf River	160%	195%
Snake abv American Falls Resv	139%	180%
Raft River	193%	244%
Goose-Trapper Creeks	194%	217%
Salmon Falls Creek	140%	172%
Bruneau River	139%	182%
Owyhee Basin Total	143%	169%
Smiths & Thomas Forks	132%	189%
Bear River ab WY-ID line	126%	182%
Montpelier Creek	131%	172%
Mink Creek	181%	182%
Cub River	163%	263%
Bear River ab ID-UT line	138%	189%
Malad River	200%	246%
Green River ab Warren Bridge	120%	165%
Upper Green River (West Side)	119%	177%
New Fork River	151%	175%
Big Sandy River/Eden Valley	143%	177%
Green River above Fontenelle	123%	174%
Hams Fork River	128%	184%
Green River above Flaming Gorge	124%	173%

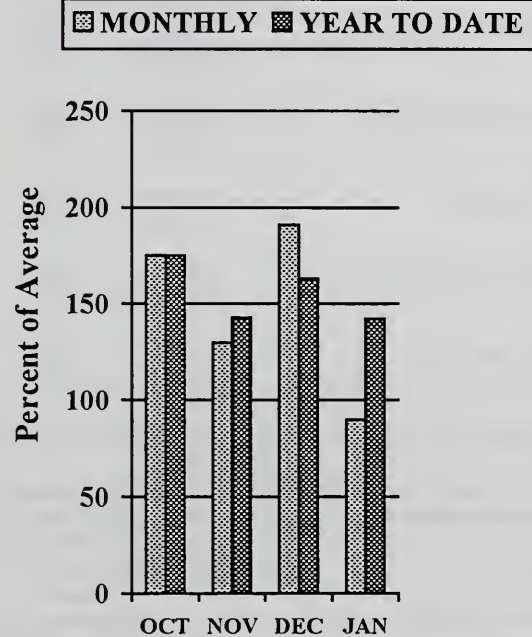
PANHANDLE REGION FEBRUARY 1, 1997



**Mountain Snowpack (inches)
PANHANDLE REGION**



**Mountain Precipitation
PANHANDLE REGION**



WATER SUPPLY OUTLOOK

Snowfall was slightly below average during January in the Idaho Panhandle, bringing some relief to an area that had been literally buried by deep snowfall earlier this winter. Currently, snowpacks are around 150% of normal. January precipitation as reported by the SNOTEL system was slightly below average as well, bringing the water year totals to 142% of average. Streamflows were above average in northern Idaho for the first time this winter as warmer temperatures finally penetrated into the area. Reservoirs report above normal storage for this time of year. Streamflow forecasts call for well above average runoff this spring and summer, with most streams in the area expected to yield about 150% of their normal April-July volumes. These high runoff projections are not good news for an area still recovering from the floods of last February. Residents in low lying areas should monitor weather conditions closely this spring; warm weather or rain-on-snow events could cause rapid rises in streamflow.

PANHANDLE REGION
Streamflow Forecasts - February 1, 1997

Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
KOOTENAI at Leonia (1,2)	APR-JUN	5375	6286	6700	118	7114	8025	5701
	APR-JUL	6851	7985	8500	118	9015	10149	7199
	APR-SEP	7873	9177	9770	118	10363	11667	8275
CLARK FK at Whitehorse Rpgds (1,2)	APR-JUN	10769	12785	13700	136	14615	16631	10050
	APR-JUL	12662	15026	16100	137	17174	19538	11730
	APR-SEP	13917	16519	17700	137	18881	21483	12910
PEND OREILLE Lake Inflow (1,2)	APR-JUN	12392	14873	16000	141	17127	19608	11390
	APR-JUL	14678	17306	18500	141	19694	22322	13150
	APR-SEP	16020	18895	20200	141	21505	24380	14370
PRIEST nr Priest River (1,2)	APR-JUL	887	1075	1160	143	1245	1433	814
	APR-SEP	948	1149	1240	143	1331	1532	868
COEUR D'ALENE at Enaville	APR-JUL	920	1039	1120	146	1201	1320	770
	APR-SEP	977	1098	1180	146	1262	1383	809
ST.JOE at Calder	APR-JUL	1499	1637	1730	148	1823	1961	1169
	APR-SEP	1582	1724	1820	147	1916	2058	1237
SPOKANE near Post Falls (2)	APR-JUL	3270	3657	3920	149	4183	4570	2633
	APR-SEP	3401	3793	4060	149	4327	4719	2730
SPOKANE at Long Lake	APR-JUL	3605	4019	4300	147	4581	4995	2936
	APR-SEP	3881	4309	4600	146	4891	5319	3159

PANHANDLE REGION Reservoir Storage (1000 AF) - End of January					PANHANDLE REGION Watershed Snowpack Analysis - February 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNGRY HORSE	3451.0	1984.0	2820.0	2362.0	Kootenai ab Bonners Ferry	22	124	143
FLATHEAD LAKE	1791.0	1124.0	1572.0	1095.0	Moyie River	2	136	143
NOXON RAPIDS	335.0	307.9	324.4	314.2	Priest River	3	264	160
PEND OREILLE	1561.3	925.9	890.9	823.1	Pend Oreille River	70	149	162
COEUR D'ALENE	238.5	116.5	127.5	127.8	Rathdrum Creek	3	342	178
PRIEST LAKE	119.3	74.0	67.0	53.4	Hayden Lake	0	0	0
					Coeur d'Alene River	5	215	155
					St. Joe River	2	192	167
					Spokane River	10	228	164
					Palouse River	1	216	175

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

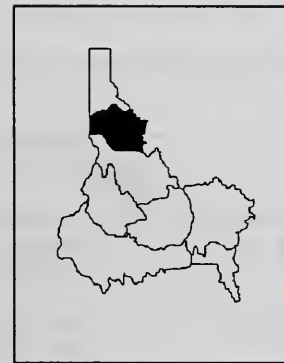
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

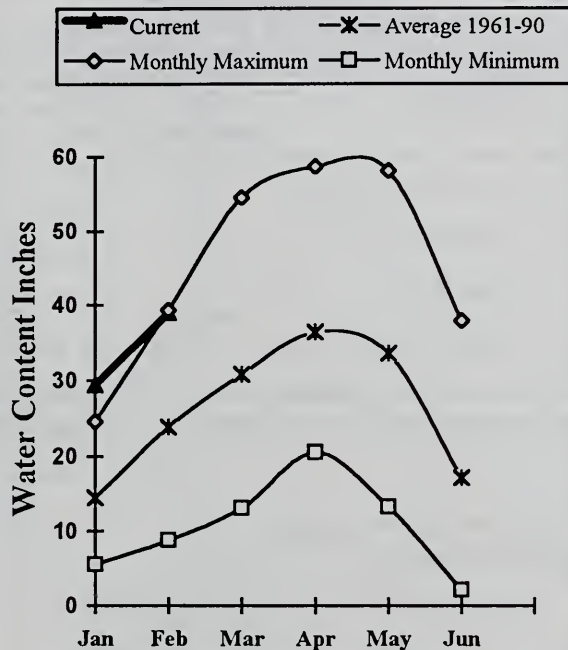
(2) - The value is natural flow - actual flow may be affected by upstream water management.

CLEARWATER RIVER BASIN

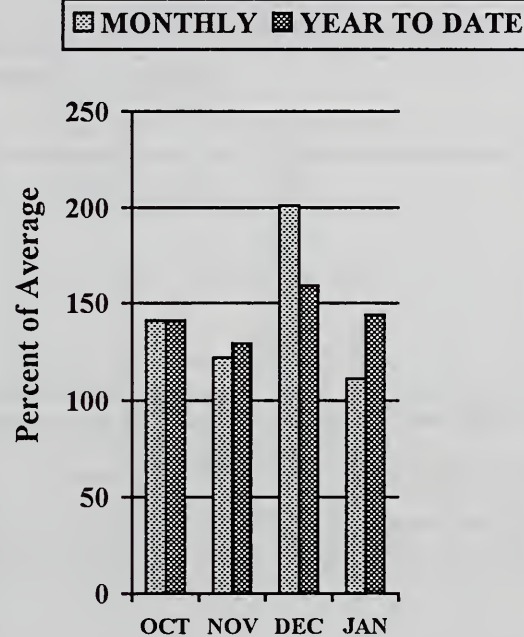
FEBRUARY 1, 1997



**Mountain Snowpack (inches)
CLEARWATER RIVER BASIN**



**Mountain Precipitation
CLEARWATER RIVER BASIN**



WATER SUPPLY OUTLOOK

January snowfall was above average in the Clearwater basin, continuing a trend that began in mid-October. Snowpacks in the basin are around 160% of average. Mountain precipitation, as reported by the SNOTEL system, was 111% of average -- the "driest" month so far this water year. Total precipitation for the water year is 144% of normal. Dworshak Reservoir is about two-thirds full and is currently being drafted in preparation for the heavy runoff expected this spring. Streamflow forecasts call for well above average runoff this spring and summer, with the inflow to Dworshak expected to be 3.95 million acre-feet -- 147% of average. Water users should plan for an abundance of water this year. Residents in low lying areas should monitor weather conditions closely this spring, as warm weather or rain-on-snow events could cause rapid rises in streamflow.

CLEARWATER RIVER BASIN
Streamflow Forecasts - February 1, 1997

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
DWORSHAK RESV INFLOW (2)	APR-JUL	3397	3726	3950	147	4174	4503	2692
	APR-SEP	3616	3958	4190	146	4422	4764	2866
CLEARWATER at Orofino (1)	APR-JUL	4779	5990	6540	139	7090	8301	4718
	APR-SEP	5050	6329	6910	139	7491	8770	4976
CLEARWATER at Spalding (1,2)	APR-JUL	8022	10070	11000	144	11930	13978	7618
	APR-SEP	8549	10716	11700	145	12684	14851	8052

CLEARWATER RIVER BASIN Reservoir Storage (1000 AF) - End of January					CLEARWATER RIVER BASIN Watershed Snowpack Analysis - February 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DWORSHAK	3459.0	2230.1	2695.5	2198.2	North Fork Clearwater	12	174	161
					Lochsa River	4	156	157
					Selway River	5	150	158
					Clearwater Basin Total	20	166	160

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

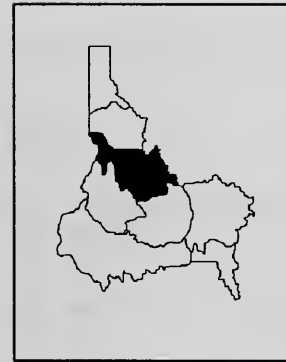
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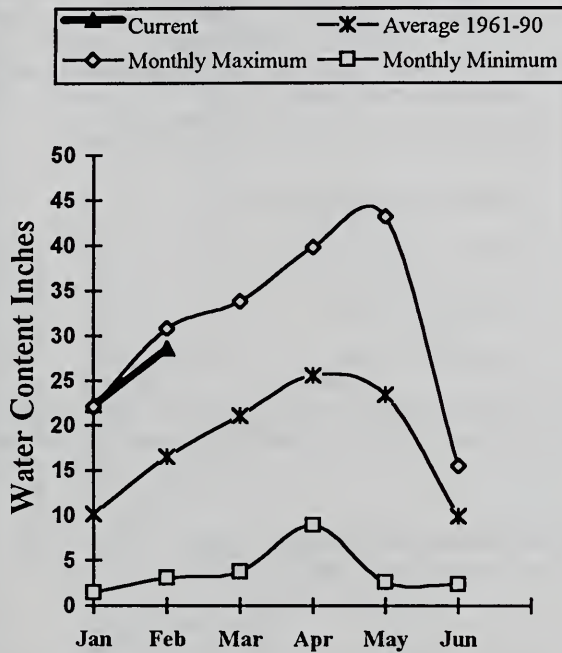
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SALMON RIVER BASIN

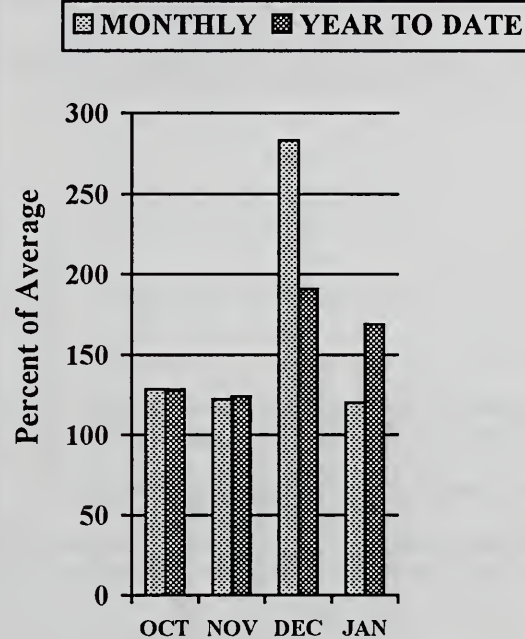
FEBRUARY 1, 1997



Mountain Snowpack (inches)
SALMON RIVER BASIN



Mountain Precipitation
SALMON RIVER BASIN



WATER SUPPLY OUTLOOK

January snowfall in the Salmon basin was above average, continuing a pattern established at the beginning of the winter. Snowpacks currently range from 153% of average for the Little Salmon River to 190% for the Salmon above Salmon. For the Salmon basin as a whole, the snowpack is 171% of average. Mountain precipitation during January was 120% of average -- another wet month but quite "dry" compared to the 280% received in December. Total precipitation for the water year stands at 169% of average. Streamflow forecasts call for extremely heavy runoff this year as a result of the deep mountain snowpacks. The Salmon at Salmon is expected to yield 188% of average flow for the April-July period; the Salmon at White Bird is forecast at 165% of average. These projected flows are the highest since records began in the early 1900's. River runners should expect *extremely high flows* during peak runoff and exercise caution when evaluating their high water boating capabilities. After peak snowmelt flows pass, sustained flows should provide an excellent boating season well into the summer.

SALMON RIVER BASIN
Streamflow Forecasts - February 1, 1997

Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
SALMON at Salmon (1)	APR-JUL	1255	1513	1630	188	1747	2005	869
	APR-SEP	1470	1773	1910	187	2047	2350	1019
SALMON at White Bird (1)	APR-JUL	7772	9187	9830	165	10473	11888	5956
	APR-SEP	8619	10188	10900	165	11612	13181	6602

SALMON RIVER BASIN Reservoir Storage (1000 AF) - End of January					SALMON RIVER BASIN Watershed Snowpack Analysis - February 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Salmon River ab Salmon	7	154	190
					Lenhi River	4	135	163
					Middle Fork Salmon River	3	152	173
					South Fork Salmon River	3	158	168
					Little Salmon River	4	171	153
					Salmon Basin Total	22	150	170

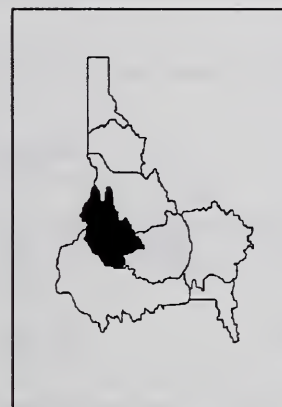
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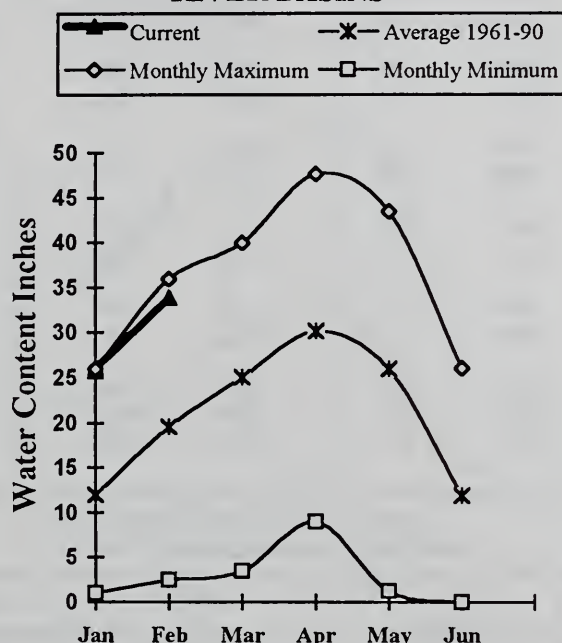
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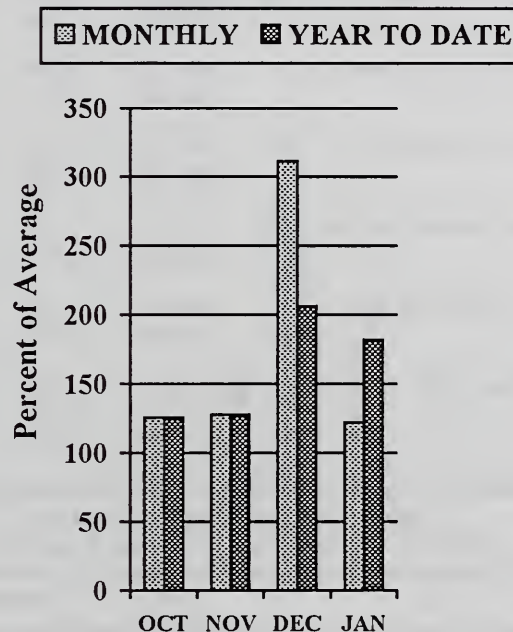
WEISER, PAYETTE, BOISE RIVER BASINS FEBRUARY 1, 1997



Mountain Snowpack (inches)
WEISER, PAYETTE, BOISE
RIVER BASINS



Mountain Precipitation
WEISER, PAYETTE, BOISE
RIVER BASINS



WATER SUPPLY OUTLOOK

January snowfall was above average in the west-central mountains, further increasing the heavy snowpacks established earlier in the winter. Currently, snowpacks range from 135% of average in the Weiser River drainage to 188% in the Middle and North Forks of the Boise. The snowpack in the Boise basin set a new record for February 1. Mountain precipitation, as measured by the SNOTEL system, was 122% of average for the month, bringing the water year total to 182%. Even though precipitation was above normal for January, it seemed quite dry compared to the record rainfall (over 300% of normal) received during December. Reservoir storage is above normal for this time of year; the Boise system reports 70% of capacity (114% of average) and the Payette system reports 76% of capacity (135% of average). These reservoir systems provided valuable flood control storage during the high runoff experienced around New Year's Day. Both systems are currently being drafted to make room for the expected heavy snowmelt runoff. The Boise River at Boise is expected to yield 2.75 million acre-feet, or 194% of average for the April-July period; the Payette near Horseshoe Bend is expected to produce 189% of normal runoff this year. *These projection are new record volumes, exceeding any flows experienced over the last 75-100 years!* Water will be in abundance this year, and carryover supplies for next year will be excellent. Flooding in January has left many areas prone to more damage when high water returns this spring. Residents in low lying areas should monitor reservoir, streamflow, and weather conditions closely, as warm weather or rain-on-snow events could cause rapid rises in river levels.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - February 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		90%		50% (Most Probable)		30%		30-Yr Avg. (1000AF)
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
WEISER nr Weiser (1)	APR-JUL	426	587	660	171	733	894	386
	APR-SEP	459	632	710	171	788	961	415
SF PAYETTE at Lowman	APR-JUL	689	749	790	183	831	891	432
	APR-SEP	798	863	907	186	951	1016	488
DEADWOOD RESERVOIR Inflow (1,2)	APR-JUL	226	252	263	195	274	300	135
	APR-SEP	235	262	274	192	286	313	143
NF PAYETTE nr Cascade (1,2)	APR-JUL	736	850	902	182	954	1068	496
	APR-SEP	773	898	954	179	1010	1135	533
NF PAYETTE nr Banks (2)	APR-JUL	1019	1121	1190	184	1259	1361	648
	APR-SEP	1064	1175	1250	181	1325	1436	690
PAYETTE nr Horseshoe Bend (1,2)	APR-JUL	2593	2914	3060	189	3206	3527	1618
	APR-SEP	2798	3150	3310	189	3470	3822	1755
BOISE near Twin Springs (1)	APR-JUL	970	1087	1140	181	1193	1310	631
	APR-SEP	1049	1177	1235	180	1293	1421	686
SF BOISE at Anderson Rnch Dm (1,2)	APR-JUL	907	1019	1070	197	1121	1233	544
	APR-SEP	963	1081	1135	195	1189	1307	582
MORES CK nr Arrowrock Dam	APR-JUL	226	247	261	202	275	296	129
	APR-SEP	232	253	268	200	283	304	134
BOISE nr Boise (1,2)	APR-JUN	2122	2341	2440	193	2539	2758	1264
	APR-JUL	2351	2626	2750	194	2874	3149	1421
	APR-SEP	2529	2819	2950	192	3081	3371	1535

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of January

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - February 1, 1997

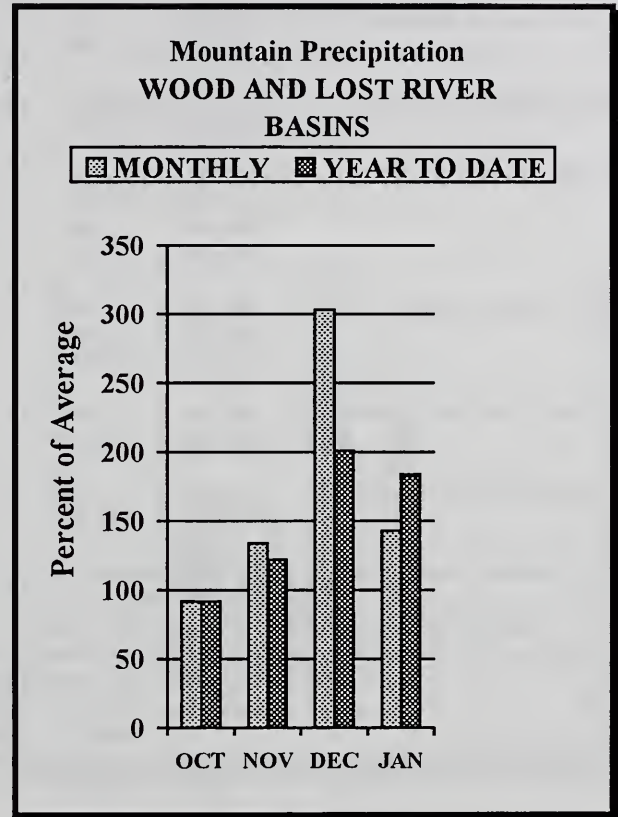
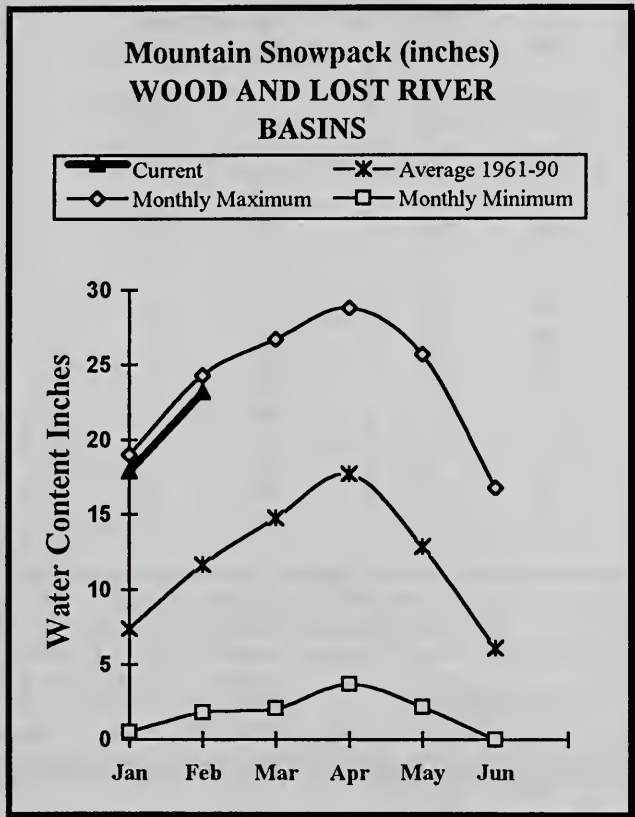
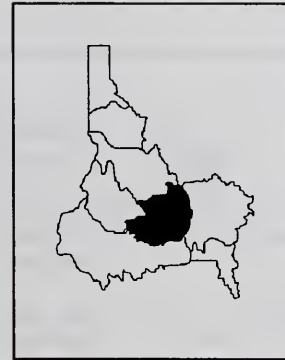
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MANN CREEK	11.1	7.4	5.4	5.4	Mann Creek	1	164	132
CASCADE	703.2	530.2	582.0	409.4	Weiser River	3	161	135
DEADWOOD	161.9	127.6	126.6	79.5	North Fork Payette	8	169	161
ANDERSON RANCH	464.2	387.3	408.4	300.6	South Fork Payette	4	165	169
ARROWROCK	286.6	206.1	230.6	223.9	Payette Basin Total	13	167	164
LUCKY PEAK	293.2	139.7	110.0	117.4	Middle & North Fork Boise	6	169	188
LAKE LOWELL (DEER FLAT)	177.1	105.8	141.3	131.0	South Fork Boise River	6	155	187
					Mores Creek	4	187	185
					Boise Basin Total	12	166	181
					Canyon Creek	0	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WOOD and LOST RIVER BASINS FEBRUARY 1, 1997



WATER SUPPLY OUTLOOK

The Wood and Lost River basins received yet another month of heavy snowfall. Mountain precipitation, as measured by the SNOTEL system, was 143% of average during January, bringing the water year total to 184% of average -- the highest total in the state. Snowpacks in the area now range from 166% of average for Camas Creek to over 200% for the Big Wood and Big Lost River basins. This is a new record snowpack for February 1 in the Big Wood and Big Lost river basins -- exceeding previous records established over the last 35 years. Magic and Little Wood reservoirs are reporting above average storage - 130 and 109% of average, respectively, but are currently being drafted in preparation for the high runoff expected this spring. Streamflow forecasts call for extremely high flows this spring and summer. *The Big Lost and Big Wood Rivers are forecast to yield record streamflows this year, higher than any experienced during the last 70 years.* Residents in low lying areas should monitor reservoir, streamflow, and weather conditions closely this spring, as warm weather or rain-on-snow events could cause rapid rises in river levels.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - February 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30-Yr Avg. (1000AF)
BIG WOOD near Hailey (1)	APR-JUL	391	455	484	190	513	577	255
	APR-SEP	440	509	540	187	571	640	289
BIG WOOD near Bellevue	APR-JUL	312	355	385	210	415	458	183
	APR-SEP	335	381	412	209	443	489	197
CAMAS CREEK near Blaine	APR-JUL	219	262	294	288	327	380	102
	APR-SEP	221	265	296	287	329	381	103
BIG WOOD blw Magic Dam (2)	APR-JUL	605	667	709	240	751	813	295
	APR-SEP	624	688	731	236	774	838	310
LITTLE WOOD near Carey (2)	MAR-JUL	161	181	195	195	209	229	100
	MAR-SEP	174	195	210	194	225	246	108
	APR-JUL	144	164	178	194	192	212	92
	APR-SEP	157	178	193	194	208	229	99
BIG LOST at Howell Ranch	APR-JUN	217	240	255	181	270	293	141
	APR-JUL	266	301	325	180	349	384	181
	APR-SEP	309	348	375	182	402	441	206
BIG LOST below Mackay Reservoir (2)	APR-JUL	244	278	301	197	324	358	153
	APR-SEP	293	330	355	193	380	417	184
LITTLE LOST blw Wet Creek	APR-JUL	42	47	50	161	53	58	31
	APR-SEP	52	58	62	158	66	72	39

WOOD AND LOST RIVER BASINS Reservoir Storage (1000 AF) - End of January					WOOD AND LOST RIVER BASINS Watershed Snowpack Analysis - February 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MAGIC	191.5	121.1	145.6	92.8	Big Wood ab Magic	8	174	204
LITTLE WOOD	30.0	16.9	26.5	15.5	Camas Creek	2	163	166
MACKAY	44.4	16.9	38.3	30.0	Big Wood Basin Total	10	172	198
					Little Wood River	3	180	183
					Fish Creek	0	0	0
					Big Lost River	5	206	211
					Little Lost River	3	164	173

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

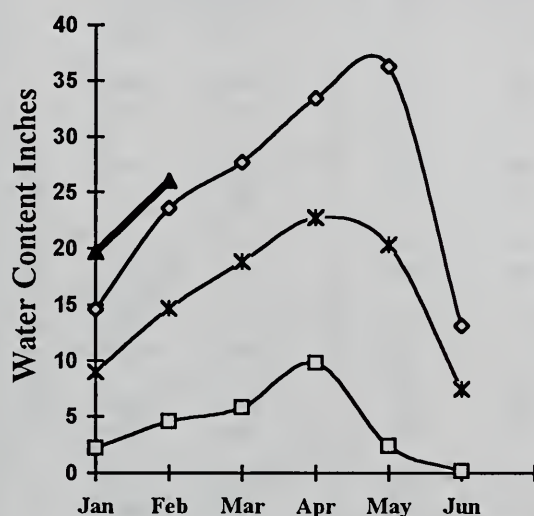
UPPER SNAKE RIVER BASIN

FEBRUARY 1, 1997



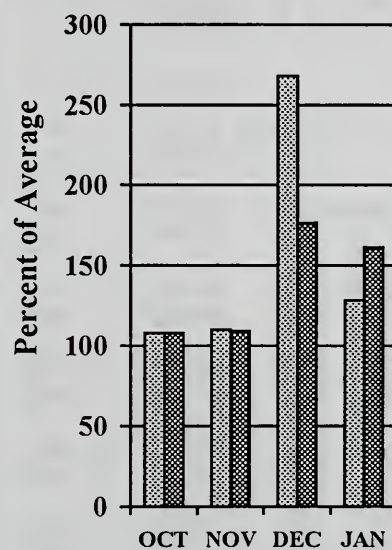
Mountain Snowpack (inches)
UPPER SNAKE RIVER BASIN

—▲— Current —×— Average 1961-90
 —◇— Monthly Maximum —□— Monthly Minimum



Mountain Precipitation
UPPER SNAKE RIVER BASIN

■ MONTHLY ■ YEAR TO DATE



WATER SUPPLY OUTLOOK

Heavy snowfall in January pushed snowpack levels in the upper Snake basin to a new record for February 1. Precipitation during the month, as reported by the SNOTEL system, was 128% of average, bringing the water year total to 161%. Snowpack in the Snake basin above American Falls is currently 180% of average, with some sub-basins reporting even higher values. Storage in the major reservoirs of the Snake mainstem is above average due to good carryover from last year and high inflows this winter. The system is currently 84% full but is being drafted in order to make room for the expected high runoff this spring. Streamflow forecasts call for well above average flows this year; *the forecast for the Snake River near Heise calls for a new record for the April-July period*. Residents in low lying areas should monitor reservoir, streamflow, and weather conditions closely this spring, as warm weather or rain-on-snow events could cause rapid rises in river levels.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - February 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
HENRYS FORK nr Ashton (2)	APR-JUL	634	691	730	134	769	826	544
	APR-SEP	844	910	955	131	1000	1066	730
HENRYS FORK nr Rexburg (2)	APR-JUL	1580	1729	1830	149	1931	2080	1228
	APR-SEP	1962	2134	2250	145	2366	2538	1551
FALLS RIVER nr Squirrel (1,2)	APR-JUL	416	467	490	135	513	564	364
	APR-SEP	495	553	580	134	607	665	432
TETON abv S Leigh Ck nr Driggs	APR-JUL	226	252	270	177	288	314	153
	APR-SEP	297	328	350	176	372	403	199
TETON nr St. Anthony (2)	APR-JUL	481	541	581	155	621	681	375
	APR-SEP	591	658	704	155	750	817	454
SNAKE nr Moran (1,2)	APR-SEP	1091	1228	1290	148	1352	1489	869
SNAKE R abv Palisades Rsvr nr Alpine	APR-JUL	3191	3435	3600	158	3765	4009	2286
	APR-SEP	3712	4009	4210	159	4411	4708	2647
GREYS R abv Palisades Reservoir	APR-JUL	394	445	480	144	515	566	333
	APR-SEP	469	526	565	146	604	661	388
SALT abv Reservoir nr Etna	APR-JUL	378	435	474	148	513	570	320
	APR-SEP	492	556	600	150	644	708	400
PALISADES RESV INFLOW (1,2)	APR-JUL	4181	4703	4940	153	5177	5699	3225
	APR-SEP	4916	5496	5760	153	6024	6604	3762
SNAKE nr Heise (2)	APR-JUL	4630	5017	5280	153	5543	5930	3451
	APR-SEP	5399	5846	6150	152	6454	6901	4048
SNAKE nr Blackfoot (1,2)	APR-JUL	5606	6523	6940	156	7357	8274	4444
	APR-SEP	7073	8089	8550	156	9011	10027	5482
PORTNEUF at Topaz	MAR-JUL	107	118	125	145	132	143	86
	MAR-SEP	135	147	156	146	165	177	107
AMERICAN FALLS RESV INFLOW (1,2)	APR-JUL	3761	4737	5180	169	5623	6599	3066
	APR-SEP	3942	5069	5580	169	6091	7218	3303

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of January

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - February 1, 1997

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HENRYS LAKE	90.4	88.3	87.2	78.7	Camas-Beaver Creeks	4	183	135
ISLAND PARK	135.2	121.3	122.3	100.7	Henrys Fork River	10	165	185
GRASSY LAKE	15.2	13.1	13.1	10.8	Teton River	8	162	181
JACKSON LAKE	847.0	691.6	677.0	479.6	Snake above Jackson Lake	13	138	181
PALISADES	1400.0	1188.7	1365.6	1043.6	Gros Ventre River	3	131	169
RIRIE	80.5	49.8	42.5	39.1	Hoback River	6	128	174
BLACKFOOT	348.7	283.7	223.8	235.8	Greys River	4	128	170
AMERICAN FALLS	1672.6	1478.6	1448.1	1141.5	Salt River	5	122	167
					Snake above Palisades	31	134	178
					Willow Creek	7	170	187
					Blackfoot River	4	152	169
					Portneuf River	4	160	195
					Snake abv American Falls	43	139	180

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

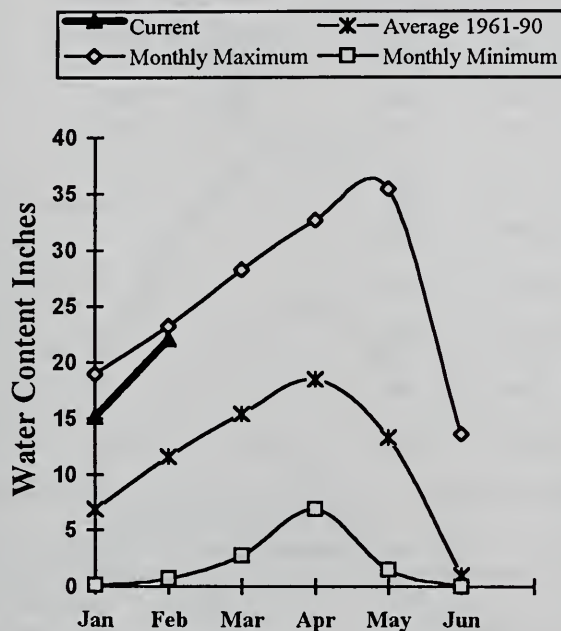
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(2) - The value is natural flow - actual flow may be affected by upstream water management.

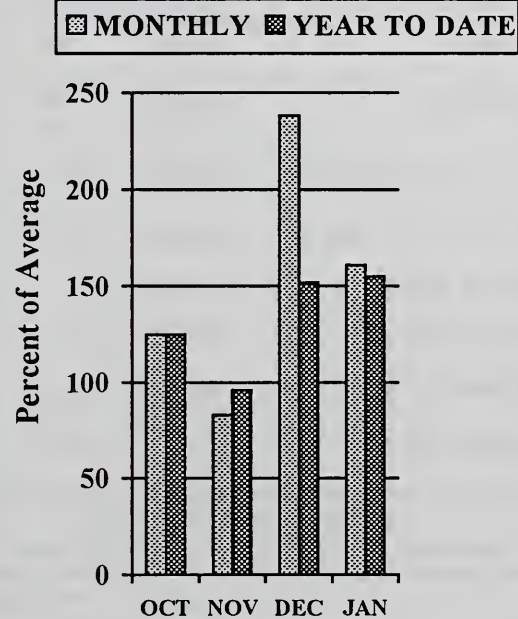
SOUTHSIDE SNAKE RIVER BASINS FEBRUARY 1, 1997



**Mountain Snowpack (inches)
SOUTHSIDE SNAKE RIVER
BASINS**



**Mountain Precipitation
SOUTHSIDE SNAKE RIVER
BASINS**



WATER SUPPLY OUTLOOK

Heavy snowfall in January increased the snowpack along the southern edge of the state to near record levels. Precipitation during the month, as reported by the SNOTEL system, was 161% of average, bringing the water year total to 155%. Snowpacks in the area range from 170 to over 200% of normal for this time of year. Because of the heavy snowfall in January, streamflow forecasts have increased considerably from projections reported last month. Almost all streams south of the Snake are expected to yield more than twice their normal volumes this spring. Reservoir storage is above average throughout the area. The forecast for Oakley Reservoir inflow exceeds the capacity of the reservoir, and emergency measures are being formulated to draw the reservoir down before the spring snowmelt begins. Current projections also indicate that Salmon Falls Creek Reservoir may fill for the second time since the reservoir was built in 1911. Reservoir managers should monitor weather conditions closely over the next few months as the potential for extremely high runoff will present significant operational challenges. Residents in low lying areas should monitor reservoir, streamflow, and weather conditions closely this spring, as warm weather or rain-on-snow events could cause rapid rises in river levels.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - February 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)				
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)		10% (1000AF)	
OAKLEY RESV INFLOW	MAR-JUL	66	77	85	258	93	107	33				
	MAR-SEP	66	78	87	241	96	111	36				
SALMON FALLS CREEK nr San Jacinto	MAR-JUN	144	173	194	225	216	251	86				
	MAR-JUL	152	183	205	224	229	266	92				
	MAR-SEP	157	188	211	219	235	273	96				
BRUNEAU near Hot Springs	MAR-JUL	344	410	458	195	509	588	235				
	MAR-SEP	353	421	470	191	522	603	246				
OWYHEE near Gold Creek (2)	MAR-JUL	49	62	72	229	83	100	31				
OWYHEE nr Owyhee (2)	APR-JUL	153	180	198	230	216	243	86				
OWYHEE near Rome	FEB-JUL	783	953	1078	173	1211	1420	622				
OWYHEE RESV INFLOW	FEB-JUL	803	983	1115	170	1256	1478	656				
	APR-SEP	414	562	675	162	799	1000	418				
SUCCOR CK nr Jordan Valley	FEB-JUL	18.1	25	30	185	35	42	16.2				
SNAKE RIVER at King Hill (2)	APR-JUL			4290	148			2896				
SNAKE RIVER near Murphy (2)	APR-JUL			4480	150			2980				
SNAKE RIVER at Weiser (2)	APR-JUL			10300	189			5465				
SNAKE RIVER at Hells Canyon Dam	APR-JUL			11600	189			6129				
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	24785	31191	34100	158	37009	43415	21650				

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of January

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - February 1, 1997

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
OAKLEY	77.4	30.5	23.1	26.5	Raft River	1	193	244
SALMON FALLS	182.6	55.5	52.3	49.3	Goose-Trapper Creeks	2	194	217
WILDHORSE RESERVOIR	71.5	55.9	39.2	31.5	Salmon Falls Creek	5	140	172
OWYHEE	715.0	592.6	526.4	464.0	Bruneau River	8	139	182
BROWNLEE	1419.3	1284.9	1095.9	1109.4	Owyhee Basin Total	20	143	169

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

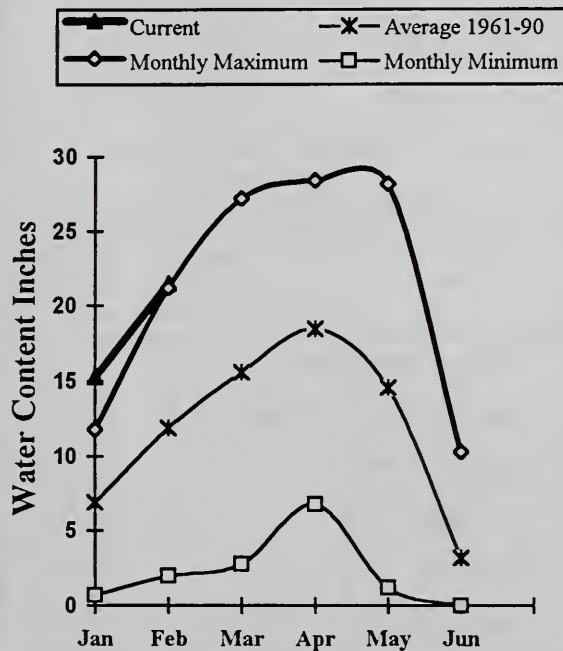
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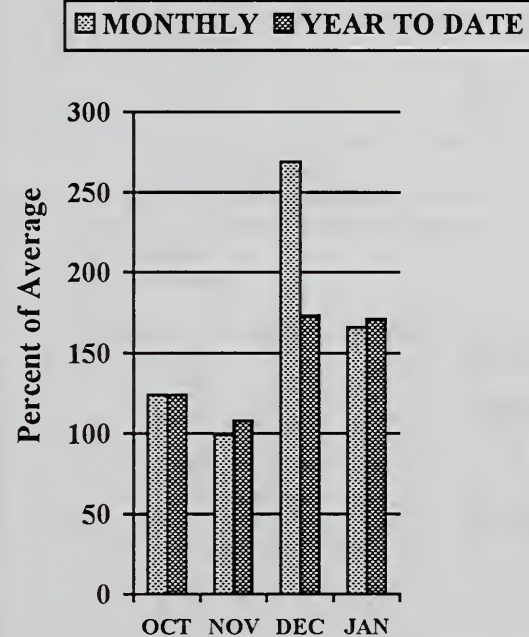
BEAR RIVER BASIN FEBRUARY 1, 1997



**Mountain Snowpack (inches)
BEAR RIVER BASIN**



**Mountain Precipitation
BEAR RIVER BASIN**



WATER SUPPLY OUTLOOK

Heavy snowfall in January increased the snowpack in the Bear River area to the highest February 1 levels of the last 35 years. Precipitation during the month, as reported by the SNOTEL system, was 166% of average -- the heaviest in the state -- bringing the water year total to 171%. Snowpacks in the area range from 170 to over 250% of normal for this time of year. Streamflow forecasts have increased considerably from projections reported last month. The Bear River below Stewart Dam is expected to yield 160% of normal runoff; Montpelier Creek is forecast at 164%. Bear Lake has nearly attained normal storage, finally recovering from a string of drought years in the late 1980's and early 1990's. Montpelier Creek reservoir is reporting 150% of normal storage for this time of year; steps are being taken to draw down the reservoir in anticipation of high spring runoff. Residents in low lying areas should monitor reservoir, streamflow, and weather conditions closely this spring, as warm weather or rain-on-snow events could cause rapid rises in river levels.

BEAR RIVER BASIN
Streamflow Forecasts - February 1, 1997

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
BEAR R nr Randolph, UT	APR-JUL	112	155	185	157	215	258	118
	APR-SEP	118	167	200	158	233	282	127
SMITHS FORK nr Border, WY	APR-JUL	139	157	170	167	183	201	102
	APR-SEP	164	185	200	170	215	236	118
THOMAS FK nr WY-ID State Line	APR-JUL	33	48	62	188	80	115	33
	APR-SEP	37	53	68	189	87	124	36
BEAR R blw Stewart Dam nr Montpelier	APR-JUL	354	417	460	160	503	566	288
	APR-SEP	405	476	525	161	574	645	327
MONTPELIER CK nr Montpelier (2)	APR-JUL	12.7	16.6	20	164	24	32	12.2
	APR-SEP	16.0	20	24	169	28	36	14.2
CUB R nr Preston	APR-JUL	57	65	71	151	77	85	47

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of January					BEAR RIVER BASIN Watershed Snowpack Analysis - February 1, 1997			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
WOODRUFF NARROWS	57.3	30.2	44.0	---	Smiths & Thomas Forks	3	132	189
WOODRUFF CREEK	4.0	3.0	3.2	---	Bear River ab WY-ID line	8	126	182
BEAR LAKE	1421.0	929.5	591.8	987.6	Montpelier Creek	2	131	172
MONTPELIER CREEK	4.0	2.4	3.2	1.6	Mink Creek	1	181	182
					Cub River	1	163	263
					Bear River ab ID-UT line	15	138	189
					Malad River	1	200	246

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report

Streamflow forecasts are projections of runoff volumes that would have occurred naturally without influences from upstream reservoirs or diversions. These values are referred to as natural or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and interbasin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made to each forecast point in this report.

Panhandle River Basins

- KOOTENAI R AT LEONIA, ID
 - + LAKE KOOCANUSA (STORAGE CHANGE)
- CLARK FORK R AT WHITEHORSE RAPIDS, ID
 - + HUNGRY HORSE (STORAGE CHANGE)
 - + FLATHEAD LAKE (STORAGE CHANGE)
 - + NOXON RAPIDS RESV (STORAGE CHANGE)
- PEND OREILLE LAKE INFLOW, ID
 - + PEND OREILLE R AT NEWPORT, WA
 - + HUNGRY HORSE (STORAGE CHANGE)
 - + FLATHEAD LAKE (STORAGE CHANGE)
 - + NOXON RAPIDS (STORAGE CHANGE)
 - + PEND OREILLE LAKE (STORAGE CHANGE)
- PRIEST R NR PRIEST R, ID
 - + PRIEST LAKE (STORAGE CHANGE)
- COEUR D'ALENE R AT ENAVILLE, ID - No Corrections
- ST. JOE R AT CALDER, ID - No Corrections
- SPOKANE R NR POST FALLS, ID
 - + COEUR D'ALENE LAKE (STORAGE CHANGE)
- SPOKANE R AT LONG LAKE, ID
 - + COEUR D'ALENE LAKE (STORAGE CHANGE)

Clearwater River Basin

- CLEARWATER R AT OROFINO, ID - No Corrections
- DWORSHAK RESERVOIR INFLOW, ID
 - + CLEARWATER R NR PECK, ID
 - + DWORSHAK RESV (STORAGE CHANGE)
 - CLEARWATER R AT OROFINO, ID
- CLEARWATER R AT SPALDING, ID
 - + DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

- SALMON R AT SALMON, ID - No Corrections
- SALMON R AT WHITE BIRD, ID - No Corrections

Weiser, Payette, Boise River Basins

- WEISER R NR WEISER, ID - No Corrections
- SF PAYETTE R AT LOWMAN, ID - No Corrections
- DEADWOOD RESERVOIR INFLOW, ID
 - + DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
 - + DEADWOOD RESV (STORAGE CHANGE)
- NF PAYETTE R AT CASCADE, ID
 - + CASCADE RESV (STORAGE CHANGE)
- NF PAYETTE R NR BANKS, ID
 - + CASCADE RESV (STORAGE CHANGE)
- PAYETTE R NR HORSESHOE BEND, ID
 - + DEADWOOD RESV (STORAGE CHANGE)
 - + CASCADE RESV (STORAGE CHANGE)
- BOISE R NR TWIN SPRINGS, ID - No Corrections
- SF BOISE R AT ANDERSON RANCH DAM, ID
 - + ANDERSON RANCH RESV (STORAGE CHANGE)
- MORES CK NR ARROWROCK DAM, ID - No Corrections
- BOISE R NR BOISE, ID
 - + ANDERSON RANCH RESV (STORAGE CHANGE)
 - + ARROWROCK RESV (STORAGE CHANGE)
 - + LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

- BIG WOOD R AT HAILEY, ID - No Corrections
- BIG WOOD R NR BELLEVUE, ID - No Corrections
- CAMAS CK NR BLAINE, ID - No Corrections
- BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID
 - + MAGIC RESV (STORAGE CHANGE)
- LITTLE WOOD R NR CAREY, ID
 - + LITTLE WOOD RESV (STORAGE CHANGE)
- BIG LOST R AT HOWELL RANCH NR CHILLY, ID - No Corrections
- BIG LOST R BLW MACKAY RESV NR MACKAY, ID
 - + MACKAY RESV (STORAGE CHANGE)
- LITTLE LOST R BLW WET CK NR HOWE, ID - No Corrections

Upper Snake River Basin

- HENRYS FORK NR ASHTON, ID
 - + HENRYS LAKE (STORAGE CHANGE)
 - + ISLAND PARK RESV (STORAGE CHANGE)
- HENRYS FORK NR REXBURG, ID
 - + HENRYS LAKE (STORAGE CHANGE)
 - + ISLAND PARK RESV (STORAGE CHANGE)
 - + DIV FM HENRYS FK BTW ASHTON & ST. ANTHONY, ID
 - + DIV FM HENRYS FK BTW ST. ANTHONY & REXBURG, ID
 - + GRASSY LAKE (STORAGE CHANGE)
- FALLS R NR SQUIRREL, ID (Discontinued)
- TETON R ABV SO LEIGH CK NR DRIGGS, ID - No Corrections
- TETON R NR ST. ANTHONY, ID
 - CROSS CUT CANAL
 - + SUM OF DIVERSIONS ABV GAGE
- SNAKE R NR MORAN, WY
 - + JACKSON LAKE (STORAGE CHANGE)
- PACIFIC CK AT MORAN, WY - No Corrections
- SNAKE R ABV PALISADES RESV NR ALPINE, WY
 - + JACKSON LAKE (STORAGE CHANGE)
- GREYS R ABV PALISADES RESV, WY - No Corrections
- SALT R ABV RESV NR ETNA, WY - No Corrections
- PALISADES RESERVOIR INFLOW, ID
 - + SNAKE R NR IRWIN, ID
 - + PALISADES RESV (STORAGE CHANGE)
 - + JACKSON LAKE (STORAGE CHANGE)
- SNAKE R NR HEISE, ID
 - + PALISADES RESV (STORAGE CHANGE)
 - + JACKSON LAKE (STORAGE CHANGE)
- SNAKE R NR BLACKFOOT, ID
 - + PALISADES RESV (STORAGE CHANGE)
 - + JACKSON LAKE (STORAGE CHANGE)
 - + DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
 - + DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID
- PORTNEUF R AT TOPAZ, ID - No Corrections
- AMERICAN FALLS RESERVOIR INFLOW, ID
 - + SNAKE R AT NEELEY, ID
 - + AMERICAN FALLS (STORAGE CHANGE)
 - + PALISADES RESV (STORAGE CHANGE)
 - + JACKSON LAKE (STORAGE CHANGE)

Southside Snake River Basins

OAKLEY RESERVOIR INFLOW, ID
+ GOOSE CK ABV TRAPPER CK NR OAKLEY, ID
+ TRAPPER CK NR OAKLEY, ID
SALMON FALLS CK NR SAN JACINTO, NV - No Corrections
BRUNEAU R NR HOT SPRINGS, ID - No Corrections
OWYHEE R NR GOLD CK, NV
+ WILDHORSE RESV (STORAGE CHANGE)
OWYHEE R NR ROME, OR
+ WILDHORSE RESV (STORAGE CHANGE)
+ JORDAN VALLEY RESV (STORAGE CHANGE)
OWYHEE RESERVOIR INFLOW, OR
+ OWYHEE R BLW OWYHEE DAM, OR
+ OWYHEE RESV (STORAGE CHANGE)
+ DIV TO NORTH AND SOUTH CANALS
SUCCOR CK NR JORDAN VALLEY, OR - No Corrections
SNAKE R - KING HILL, ID - No Corrections
SNAKE R NR MURPHY, ID - No Corrections
SNAKE R AT WEISER, ID - No Corrections
SNAKE R AT HELLS CANYON DAM, ID
+ BROWNLEE RESV (STORAGE CHANGE)

Bear River Basin

BEAR R NR RANDOLPH, UT
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
SMITHS FORK NR BORDER, WY - No Corrections
THOMAS FORK NR WY-ID STATELINE - No Corrections
BEAR R BLW STEWART DAM, ID
+ SULPHUR CK RESV (STORAGE CHANGE)
+ CHAPMAN CANAL DIVERSION
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)
+ TOTAL OF 12 CANALS
+ WESTFORK CANAL
+ DINGLE INLET CANAL
+ RAINBOW INLET CANAL
MONTPELIER CK NR MONTPELIER, ID
+ MONTPELIER CK RESV (STORAGE CHANGE)
CUB R NR PRESTON, ID - No Corrections

RESERVOIR CAPACITY DEFINITIONS - Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. The table below lists these volumes for each reservoir in this report, and defines the storage volumes that NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage.

BASIN/ RESERVOIR	DEAD STORAGE	INACTIVE STORAGE	ACTIVE STORAGE	SURCHARGE STORAGE	NRCS CAPACITY	NRCS FIGURES INCLUDE
PANHANDLE REGION						
HUNGRY HORSE	39.73	--	3451.00	--	3451.0	ACTIVE
FLATHEAD LAKE	Unknown	--	1791.00	--	1971.0	ACTIVE
NOXON RAPIDS	Unknown	--	335.00	--	335.0	ACTIVE
PEND OREILLE	406.20	112.40	1042.70	--	1561.3	DEAD + INACTIVE + ACTIVE
COEUR D'ALENE	--	13.50	225.00	--	238.5	INACTIVE + ACTIVE
PRIEST LAKE	20.00	28.00	71.30	--	119.3	DEAD + INACTIVE + ACTIVE
CLEARWATER BASIN						
DWORSHAK	--	1452.00	2007.00	--	3459.0	INACTIVE + ACTIVE
WEISER/BOISE/PAYETTE BASINS						
MANN CREEK	1.61	0.24	11.10	--	11.1	ACTIVE
CASCADE	--	50.00	653.20	--	703.2	INACTIVE + ACTIVE
DEADWOOD	1.50	--	161.90	--	161.9	ACTIVE
ANDERSON RANCH	29.00	41.00	423.18	--	464.2	INACTIVE + ACTIVE
ARROWROCK	--	--	286.60	--	286.6	ACTIVE
LUCKY PEAK	--	28.80	264.40	13.80	293.2	INACTIVE + ACTIVE
LAKE LOWELL	--	8.00	169.10	--	169.1	ACTIVE
WOOD/LOST BASINS						
MAGIC	--	--	191.50	--	191.5	ACTIVE
LITTLE WOOD	--	--	30.00	--	30.0	ACTIVE
MACKAY	0.13	--	44.37	--	44.4	ACTIVE
UPPER SNAKE BASIN						
HENRY'S LAKE	--	--	90.40	--	90.4	ACTIVE
ISLAND PARK	0.40	--	127.30	7.90	135.2	ACTIVE + SURCHARGE
GRASSY LAKE	--	--	15.18	--	15.2	ACTIVE
JACKSON LAKE	--	--	847.00	--	847.0	ACTIVE
PALISADES	44.10	155.50	1200.00	--	1400.0	DEAD + INACTIVE + ACTIVE
RIRIE	4.00	6.00	80.54	10.00	80.5	ACTIVE
BLACKFOOT	--	--	348.73	--	348.7	ACTIVE
AMERICAN FALLS	--	--	1672.60	--	1672.6	ACTIVE
SOUTHSIDE SNAKE BASINS						
OAKLEY	--	--	77.40	--	77.4	ACTIVE
SALMON FALLS	48.00	--	182.65	--	182.6	ACTIVE
WILDHORSE	--	--	71.50	--	71.5	ACTIVE
OWYHEE	406.83	--	715.00	--	715.0	ACTIVE
BROWNLEE	0.45	444.00	975.30	--	1419.3	INACTIVE + ACTIVE
BEAR RIVER BASIN						
WOODRUFF NARROWS	--	1.50	57.30	--	57.3	ACTIVE
WOODRUFF CREEK	--	4.00	4.00	--	4.0	ACTIVE
BEAR LAKE	--	--	1421.00	--	1421.0	ACTIVE
MONTPELIER CREEK	0.21	--	3.84	--	4.0	DEAD + ACTIVE

Interpreting Streamflow Forecasts

Introduction

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflows are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

Most Probable (60 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow volume that can be produced given current conditions and based on the outcome of similar past situations. There is a 50 percent chance that the streamflow volume will exceed this forecast value. There is a 50 percent chance that the streamflow volume will be less than this forecast value.

The most probable forecast will rarely be exactly right, due to errors resulting from future weather conditions and the forecast equation itself. This does not mean that users should not use the most probable forecast: it means that they need to evaluate existing circumstances and determine the amount of risk they are willing to take by accepting this forecast value.

To Decrease the Chance of Having Too Little Water

If users want to make sure there is enough water available for their operations, they might determine that a 50 percent chance of the streamflow volume being lower than the most probable forecast is too much risk to take. To reduce the risk of not having enough water available during the forecast period, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in-between). These include:

70 Percent Chance of Exceeding Forecast. There is a 70 percent chance that the streamflow volume will exceed this forecast value. There is a 30 percent chance the streamflow volume will be less than this forecast value.

90 Percent Chance of Exceeding Forecast. There is a 90 percent chance that the streamflow volume will exceed this forecast value. There is a 10 percent chance the streamflow volume will be less than this forecast value.

To Decrease the Chance of Having Too Much Water

If users want to make sure they don't have too much water, they might determine that a 50 percent chance of the streamflow being higher than the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operational decisions on one of the forecasts with a smaller chance of being exceeded. These include:

30 Percent Chance of Exceeding Forecast. There is a 30 percent chance that the streamflow volume will exceed this forecast value. There is a 70 percent chance the streamflow volume will be less than this forecast value.

10 Percent Chance of Exceeding Forecast. There is a 10 percent chance that the streamflow volume will exceed this forecast value. There is a 90 percent chance the streamflow volume will be less than this forecast value.

Using the forecasts - an example

Using the Most Probable Forecast. Using the example forecasts shown below, users can reasonably expect 36,000 acre-feet to flow past the gaging station on the Mary's River newa Deeth between March 1 and July 31.

Using the Higher Exceedance Forecasts. If users anticipate a somewhat drier trend in the future (monthly and seasonal weather outlooks are available from the National Weather Service every two weeks), or if they are operating at a level where an unexpected shortage of water could cause problems, they might want to plan on receiving only 20,000 acre-feet (from the 70 percent chance of exceeding forecast). In seven out of ten years with similar conditions, streamflow volumes will exceed the 20,000 acre-foot forecast.

If users anticipate extremely dry conditions for the remainder of the season, or if they determine the risk of using the 70 percent chance of exceeding forecast is too great, then they might plan on receiving only 5000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streamflow volumes will exceed the 5000 acre-foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or if the chance that five out of every ten years with similar conditions would produce streamflow volumes greater than 36,000 acre-feet was more than they would like to risk, they might plan on receiving 52,000 acre-feet (from the 30 percent chance of exceeding forecast) to minimize potential flooding problems. Three out of ten years with similar conditions, streamflows will exceed the 52,000 acre-foot forecast.

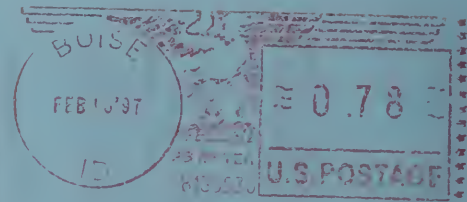
In years when users expect extremely wet conditions for the remainder of the season and the threat of severe flooding and downstream damage exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water management operations. Streamflow volumes will exceed this level only one year out of ten.

UPPER HUMBOLDT RIVER BASIN									
FORECAST POINT	FORECAST PERIOD	STREAMFLOW FORECASTS							
		DRIER-----FUTURE CONDITIONS-----WETTER----->				Chance of Exceeding			
		80% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	30% (1000AF)	10% (1000AF)	25 YR (1000AF)		
MARY'S RIVER nr Deeth	MAR-JUL	5.0	20.0	36	77	52	76	47	
	APR-JUL	8.0	17.0	31	74	45	67	42	
LAMOILLE CREEK nr Lamoille	MAR-JUL	6.0	16.0	24	79	32	43	31	
	APR-JUL	4.0	15.0	22	75	30	41	30	
NR HUMBOLDT RIVER at Devils Gate	MAR-JUL	6.0	12.0	43	73	74	121	59	

For more information concerning streamflow forecasting ask your local NRCS field office for a copy of "A Field Office Guide for Interpreting Streamflow Forecasts".



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